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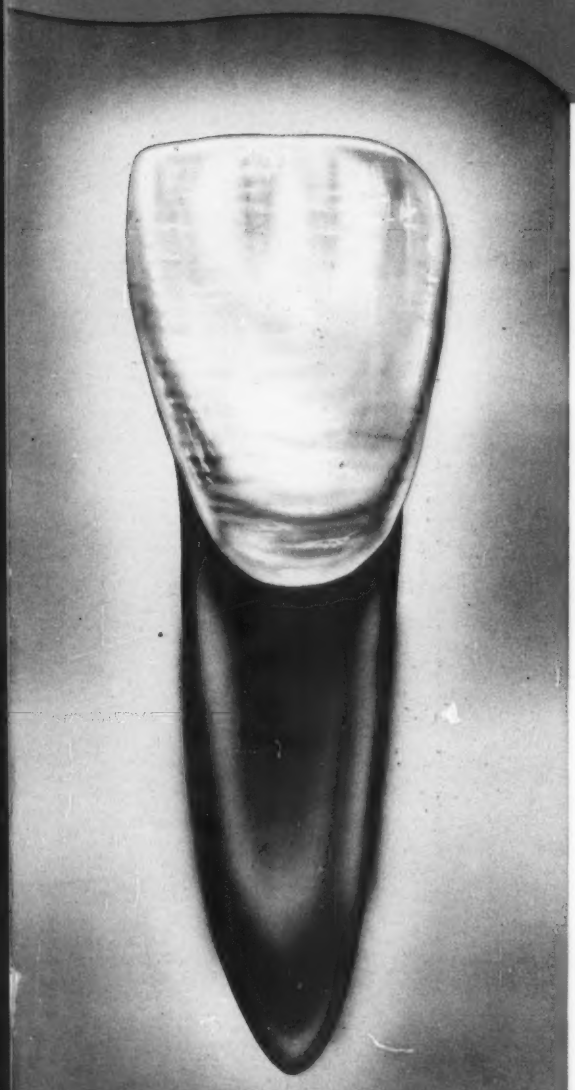

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Recent issues of most dental journals have contained considerable discussion of the accreditation of dental laboratories. By way of giving you the other side of the story we are reprinting in this issue of TIC, two articles which were recently published in *laboratory* journals. Publication of these articles are not to be understood as the reflection of our opinion of accreditation.

Also published in this issue of TIC is a very significant paper, that is in fact, a plea for the education of dental technicians. This paper was prepared by a person prominent in dentistry whose efforts to improve relations between the laboratory industry and the profession are well known. We publish this plea for the education of technicians simply to emphasize in a realistic manner the extent of the prosthetic problem.

The fourth paper in this issue of TIC was read last month before the Philadelphia County Dental Society. The author in this paper establishes diagnosis and examination as a basis for prosthetic prescriptions. He cites the possible consequences of a continued indifference to the present relation between laboratories and dentists.

One laboratory journal in an editorial, recently complimented a laboratory owner because he has received invitations from groups all over the country to teach dentists operative procedures in prosthetic work. When such conditions are tolerated and complimented, change of attitude and practices towards the responsibilities of prosthetic work is long over-due.

Time and again we have stated in these pages that we do not favor a change in the methods by which dentistry is distributed. At the same time, we must recognize the conditions that may justify change and recommend to you their correction.

J. J. NEVIN

THE PRESCRIPTION LAW A TRAVESTY

"A person practices dentistry within the meaning of this article, who holds himself out as being able to diagnose, treat, operate, or prescribe for any disease, pain, injury, deficiency, deformity, or physical condition of the human teeth, alveolar process, gums, or jaws, and who shall either offer or undertake by any means or method to diagnose, treat, operate or prescribe for any disease, pain, injury, deficiency, deformity, or physical condition of the same; or who, except on the written prescription of a duly licensed and registered dentist and by the use of impressions or casts made by a truly licensed and registered dentist, shall directly or indirectly by mail, carrier, personal agent, or by any other method, furnish, supply, construct, reproduce, or repair prosthetic dentures, bridges, appliances or other structures to be used and worn as substitutes for natural teeth; or who shall place such substitutes in the mouth and/or adjust the same."

—Section 1300, Education Laws of the State of New York

(Reprinted from Guild Laboratory News)

The above law, or some slight variation of it, is in force in a number of states of the union. Its enactment was brought about by organized dentistry ostensibly for the purpose of insuring better, more scientific, restorations to the public. It caused the making of any type of repairs to dentures or other dental appliances by technicians, or other unlicensed persons, directly for laymen, illegal, and it makes it unlawful for anyone but a dentist to work on dental appliances, except upon written prescriptions of duly licensed members of the dental profession.

If the law had achieved, even in some small measure, the improvement of dental restorations to the public, we would be the first to support it. However, in the five years since its passage, it has demonstrated that it has failed to do so. As it now stands, the law is incomplete, inadequate and partial to one group only—the dental profession. It has been of no value whatever to the public, and it has placed unfair burdens upon the dental laboratory and technician.

The law requires the technician to have a prescription, but it does *not* require the dentist to issue one. It does not require the dentist to examine a denture after the technician has produced it, thus placing the patient at the mercy of the unlicensed technician, just as before. It does not define the nature of the prescription, or provide for any rules according to which it is to be written, with the result that most prescriptions are totally without description of the work required. It does not provide for a qualified person to fill the prescription; anyone—even if he cannot read or write—is permitted under this law to fill it. Therefore, when a conscientious dentist does prepare a scientific and thorough prescription, the probabilities are that the technician is not sufficiently trained to fully comprehend it.

Let us examine these charges in the light of facts.

Sole Responsibility on Technician

The dentist does not violate the law if he sends a case, *or a patient*, to the laboratory without a prescription. But the laboratory man is a violator and subject to arrest and prosecution if he works on the case without an accompanying prescription from the licensed dentist. Even with a prescription, the technician is, of course, not permitted to place the

case, or adjust it, in the patient's mouth. This failure of the law to make the dentist equally responsible to *issue* the prescription has brought about numerous situations where the laboratory man has had to violate the law and place himself in jeopardy to please his dentist. Every laboratory man experiences almost daily instances where his dentist sends patients to the laboratory for adjustments, repairs, shades, etc., etc., *without an accompanying prescription.* A recent survey in Pennsylvania by the Dental Society itself showed that a *majority* of dentists were sending patients to the laboratories. The A. D. A. is also cognizant of the situation, as will be shown in an article written by the secretary of its Prosthetic Service Committee, Dr. Carl O. Boucher, to be published in the next issue of the *Guild Laboratory News.*

Surely, the laboratory man may refuse to work on a case, or service a patient, without a prescription, or in an otherwise illegal manner. But if he does so, he will inevitably arouse the enmity of his dentist-client, and he just has to cooperate in this manner if he is to carry on a successful enterprise. If the law also required the dentist to issue the prescription, as well as the laboratory man to have one, and the dentist would be equally subject to prosecution for failure to do so, dentists would be reluctant to make such impositions upon his technician.

It is indeed doubtful, under present dental laws, whether a dentist can be prosecuted, when he sends his patient to the laboratory for adjustments *in the mouth*, although there are those who believe this to be a violation. But if the law were specific in this respect, as well as in the case of issuing prescriptions, there would be no doubt, and the laboratory man would be freed of the constant jeopardy he is placed in, not to speak of the extra drain upon his time and responsibilities, for which he is seldom, if ever, compensated.

Repairing a Restoration

The prescription law makes it illegal for one to, "except on the written prescription of a duly licensed and registered dentist and by the use of impressions or casts made by a duly licensed and registered dentist . . . directly or indirectly by mail, carrier, personal agent, or by any other method, furnish, supply, construct, reproduce or *repair* prosthetic dentures, bridges, appliances or other structures to be used and worn as substitutes for natural teeth; or . . . place such substitutes in the mouth and/or adjust the same."

This provision in the law is fully complied with if the technician has a written prescription and an impression or cast from a dentist, *even though he, the technician or laboratory man or anyone, delivers the case directly to the patient*, just so the technician does not place or adjust the case in the patient's mouth.

Now, it rarely happens that a dentist will have the laboratory deliver an original denture to the patient directly, but it is a common occurrence for the patient to come directly to the laboratory, on the dentist's request, to have a denture repaired. The law permits this, as shown above, where there is a prescription and a cast. *The law does not require that the denture be returned to the dentist for examination or adjustment before it may be delivered to the patient.*

THE PRESCRIPTION LAW

If the prescription law is supposed to protect the public against unlicensed persons, even as to repairs to dentures, why does it permit these same persons to hand the finished appliance to the patient, without any check on whether or not the work was done scientifically and safely? This would be proper if the law also provided for licensed technicians, who had proved their qualifications and were sanctioned by the state, as in the case of medical prescriptions. But, let it be remembered, that in the present instance, *anyone*, under this law, is permitted to fill the prescription. He could be a shoemaker, a tinsmith or a tire-repair man.

In actual practice, as is well known, the dentist sends along a repair, with hardly a prescription, let alone a cast or impression. In a recent case in a Court in New York City, a man was convicted for repairing one tooth in a full plate for a patient directly. It was testified to that in twenty-five years as technician, this man had never received a cast from a dentist where a simple repair, such as inserting a tooth, was ordered. Nevertheless, the court held that if the technician did not have both a cast *and* a prescription from a dentist (which in this case, he did not have), he was guilty of violating the prescription law. Judges are not acquainted with the mechanics of actual dental practice, and they rightly follow the law as they read it, but the ones who framed the law—know that casts and impressions are not ordinarily sent with simple repairs. Yet they permit the law to stand as written.

The fact is that in its present form, the prescription law does not protect the public against faulty repairs.

What is a prescription?

Let us move on to an analysis of the fundamental tenet of the law—the prescription itself. The statute simply requires that there must be a "written prescription from a duly licensed and registered dentist" with every case. It does not specify what the prescription should contain, nor does it provide for any rules according to which it must be written—naturally, since it does not even require the dentist

to issue one, as we have noted already. The one way we can judge the nature of a dental prescription, then, is to review the average run of prescriptions that have been coming in to the laboratories since the law went into effect.

We have accumulated a number of prescriptions from a cross-section of laboratories. We have found that they are either so brief and non-descriptive, as to make the term "prescription" when applied to them, laughable, or they are so technical as to require the technician to have a thorough training in order to properly comprehend them, and are therefore even more ludicrous when read in the light of the law, which omits all mention of any qualifications on the part of the one who is to fill the prescription.

Many prescriptions, rather than instructing the technician, request his advice, or ask the technician to use his own judgment. A number of prescriptions request the laboratory to design the case, to decide where rests should be placed, to post-dam the case, to decide, even, what operative procedures the dentist should employ. All this is a far cry from what the word "prescription" usually implies, particularly as used by physicians, where every gram of material is clearly and minutely specified, instructing the pharmacist as to every step to be taken.

We could reproduce numerous of these so-called prescriptions as examples of the above assertions, for they are the rule and not the exception, but that is unnecessary, since our readers, being technicians, will find their counterparts in their own laboratories. However, we shall take up a few in order to make our conclusions clear.

The following are samples of the brief prescription:

"Make Acrylic Plates. How does this wax impression look? I think it is very good."

"Cast vitallium lingual bar case—clasp bicuspids —rests on molars. *Add any indirect retainers you think necessary.*"

"Please advise if a satisfactory partial case can be made on this mouth."

"All metal, shade 9 T C. *If design does not meet approval, use your design.* Make palatal bar as narrow as possible."

"Immediate partial denture. Shade 7 in vulcanite. Break off right central and left lateral. Right No. 1 bicuspid. *Clasp where you deem necessary according to bite.*"

"Note the exposed root on lower left second bicuspid. *Should I extract it or would it do for a clasp?*"

On the other extreme is the dentist who sends a prescription to his technician, who is legally unacquainted with the science of dentistry, which reads as follows:

"Change median line to the one previously established, dropping left anteriors to the incisal bite as previously indicated, pay particular attention to the left central and lateral. The canine is in good position, however, if necessary grind the necks of both right and left canines because of their *incisal lingual version*—this will give us a better *vertical aspect.*"

The net effect of all types of prescriptions, from the simplest to the most complicated, is the same: the technician must instruct himself as to the construction of the case, just as he did before the prescription law went into effect. The dentist who sent adequate instructions before, does so now; the dentist who left it all to the technician before has not changed his habits by reason of the law. Here again, the public is not benefitted one bit by the reason of this statute, and the technician has been given the added burden of making sure he has that bit of paper with every case—or else, criminal prosecution.

What is to be done.

The dentist alone has benefitted from the operation of the law. It gave him complete monopoly on the making of repairs, and it presumably assists him in detecting illegal practice. It has amounted to strictly a business proposition, and has had nothing to do with the improvement of prosthetic restorations to dental patients. The public still remains victimized as a result of the poor workmanship of unqualified, untrained "technicians," who are patronized by numerous dentists on the basis of price or personal relationship rather than quality. There is nothing in the law to stop him from sending his work to anyone, no matter how unskilled or unethical.

The relationship of the dental laboratory to the dentist has been a well-kept secret from the public, the legislators, the courts and even health authorities. We are the "men in the back room." People who are aware of the existence of the dental laboratory are for the most part under the impression that dental technicians are licensed and of proved qualifications. Obviously, from a layman's point of view, a prescription is a technical document, to be filled only by those who are licensed by the state to do so. Would a person have a physician's prescription compounded by anyone but a licensed pharmacist? Oh yes, we can hear a dentist scoff at this argument with the statement that, after all, he, the dentist, inserts

(*Continued on page 7*)

LET'S GROW UP!

(Reprinted from the July, 1945 issue of THE LABORATORY TECHNICIAN *by popular demand*)

Why, man, he doth bestride the narrow world
Like a Colossus, and we petty men
Walk under his huge legs and peep about
To find ourselves dishonourable graves.
Men at some time are masters of their fates:
The fault, dear Brutus, is not in our stars,
But in ourselves, that we are underlings.

—SHAKESPEARE (*Julius Caesar*)

(Republished* in Sept. 1945 issue of *The Laboratory Technician)

When dental laboratory men rebel inwardly at the patronizing air of the profession toward them, when they resent the profession's opposition to laboratory recognition, laboratory licensing and even to education for dental laboratory technicians, these dental laboratory men should inquire if the fault does not lie in themselves. Instead they are more apt to cuss out the profession for what amounts to nothing more than maintaining a long existing position of patron toward the laboratory man, a position which laboratory men have encouraged since the first labman opened the first dental laboratory.

One need not delve far back into the history of the dental laboratory industry to find how the laboratory man fell into this somewhat subservient position. In the beginning the laboratory man was an employee of the dentist. The earliest commercial dental laboratories were simply off-shoots of this employer-employee relationship. Yet in many ways, the early dental laboratories were actually in a more subservient position than the laboratory man working in a dentist's office.

Dentists in those days were pretty good mechanics in their own right, and could sling together a set of dentures, a bridge or a partial as handily as any laboratory man. To them a dental laboratory was a somewhat dubious convenience, not a necessity as it is to the modern dentist. Consequently, when one of these old timers gave his work to a laboratory, he was actually doing the laboratory a favor. This put the dentist in the position of a patron, the laboratory man in the position of seeking and accepting the favors of his patron.

This relationship was further emphasized by the fact that most, if not all, early dental laboratory men had been trained by some dentist. They felt a natural obligation toward these "masters" and, consciously or unconsciously, assumed the attitude of being eternally in debt to them—for teaching them what they knew; for making it possible for them to start a laboratory; for giving them the work which enabled them to continue in business. Many old time labmen still have this attitude, particularly when in the presence of "Doctor."

To these early labmen "Doctor" was a superior being before whom all bowed. "Doctor" was always right. "Doctor" could do no wrong.

Most of these old time dentists were good eggs, but no men could be subjected long to such kowtowing without eventually assuming a belief in their own superiority—which they did and which they passed on to future generations of dentists who are in no way entitled to it.

Just as the old time dentists handed down their position of patron to future members of the profession, so did the old time labman hand down to new recruits in the laboratory industry his feeling of subserviency to the dentist. There are, however, increasing signs that many of these newer members of the industry are beginning to question the logic and soundness of this castle system. They are also beginning to wonder whether the laboratory men will ever be able to obtain educational training for technicians, any sort of state recognition or license so long as these benefits must come as hand-outs from the profession.

The dental laboratory industry today is in a transitional stage. Many of the leading men in the industry today are still those who entered it from dental offices, or are men who were early recruits into dental laboratories and thoroughly indoctrinated in the belief in the infallibility of the Doctorate. Despite the success most of these men have made in the dental laboratory industry; despite the truly important roles they have played in building up a new industry where none had existed before; in furthering technical progress in new methods, materials and appliances, these men have never been able to shake off that feeling of subserviency to the profession. This is most interesting, psychologically, because in most cases these laboratory owners can by all material standards look down their noses at their "patrons."

Yet, in spite of their wealth, position and influence these men will go hat-in-hand to the profession for approval or permission to seek those educational advantages, legislative recognition and license which they have earned as their right.

Every such effort has met with rebuff, double-crossing, and failure. It seems quite evident to The Technician that the dental profession has no intention of changing voluntarily the patron-servant relationship existing between dentist and laboratory man. It is determined to maintain the status quo. The latest proof of this is the veto by Governor Thomas E. Dewey of the modest laboratory legislation in New York which apparently was sponsored by the Dental Society of the State of New York.

All of which brings The Technician to the conclusion that if the dental laboratory industry is to improve conditions in the industry and control its own craft it will have to do so on its own initiative and of its own efforts, independently of any aid, approval or cooperation from the profession. In other words, laboratory men must assume mastery of their own fates.

History proves the soundness of this belief. The nearest approach the dental laboratories have yet made to obtaining state recognition and licensing was the result of independent action by the dental laboratories. This occurred in New York State in 1929 when a laboratory licensing law was actually passed by the state legislature and signed by then Governor Franklin D. Roosevelt.

When the profession—or rather a vociferous minority of the profession—rose up in righteous indignation against this instance of lese-majesté on the part of the dental laboratories and instituted action for repeal of the law, did the leaders in the industry fight to keep their newly won control over their own industry? Did they even try to win hostile dentists over to it? No. They meekly withdrew back into their laboratories and permitted the law to be repealed without opposition.

This, of course, was a very bad move. It was a confession of moral cowardice; an admission that laboratory men could be shoved and pushed around at will by the profession.

The history of subsequent attempts to obtain state regulation by working with the profession has resulted in many bootless conferences, various proposals, much talk, endless stalling and total failure to accomplish anything.

With such a record of failure, The Technician thinks it is time for the men who have been guiding the efforts of the laboratories to obtain regulation and educational opportunities through the profession, to step down. It is time that some of the newer members of the industry take over.

Having been trained in the modern laboratories, uninfluenced by any of the old master-servant days, fully aware that the modern dental laboratory with its scientific appliances and methods and its new materials and technics is in fact a coordinate branch of dentistry, as the pharmacy, the X-ray laboratory and the biological laboratory are in medicine, these men will be more fitted by training and temperament to fight for their rights.

The role that the modern dental laboratory is playing in modern dentistry is too important to be kept suppressed indefinitely. Its power for evil, if uncontrolled, is as great as its power for good, if controlled and regulated. Dentistry should see that. And Dentistry will see it just as soon as the dental laboratories show a determined effort to present and press their claims for recognition to the legislatures.

The entire question of recognition of the rights of dental laboratories to educational opportunities and a license has reached the point where it can no longer be handled with kid gloves and behind closed doors. If the legislatures and the public knew the part dental laboratories play in the construction of dental restorations and appliances, the necessity for

placing such a vital health service under adequate state control would be recognized immediately. It is doubtful if the real truth is known to any of our law-makers. Certainly very few members of the general public ever heard of a dental laboratory let alone know what a vast proportion of dentures and other restorations are made by these unknown laboratories (95%).

If possible the confidential relationship which has always existed between the dentist and the laboratories should continue. But this confidential relationship has seriously handicapped the laboratories in their efforts for recognition. If the profession persists in taking advantage of this relationship, it may find that the younger generation will "scrap" the old policy.

THE PRESCRIPTION LAW (*Continued from page* 4)

the completed case in the patient's mouth and makes adjustments when necessary. Well, we have already shown that the law does not require this precaution, and we are discussing the prescription law *as it is now in force*. And, we have also shown that in the case of repairs, it is a frequent practice to have the patient go directly to the laboratory. Furthermore, as we have demonstrated in our examples of actual prescriptions in use, the dentist often relies on the judgment, as well as the skill, of the technician, and so, even when the dentist examines the case before placing it in the patient's mouth, the proper execution of the denture is dependent upon the technician's own knowledge, skill and integrity. Can anyone deny that the average dentist's prosthetic service to his patients depends upon his technician's ability or lack of it?

It is evident that the prescription law in its present form continues to exist only by reason of the widespread ignorance among the governmental authorities, as well as the public in general, as to the true nature of its operation, just as the failure to provide for the licensing of technicians is the result of the same lack of knowledge of the importance of the technician in the dental structure. The law needs to be amended—and amended thoroughly!

The bill that was passed by the legislature of New York and vetoed by Governor Dewey early this year, provided a step in the right direction. It was an amendment to the prescription law, which provided for rules under which a dentist must issue a prescription, and it called for the registration of dental laboratories under certain qualifications, who alone would be permitted to fill prescriptions. While the bill did not thoroughly establish educational and training standards for technicians, it did, at least, make the prescription law a workable instrument, which would have given some degree of protection to the public, and was fairer to the legitimate dental laboratory.

A bill along similar lines is expected to be introduced again in the coming session of the legislature of New York. It deserves the support of every laboratory man and technician, and similar bills should be entered in every legislature in the country. Of course, we believe that legislation which will provide for the thorough education, training and ethical qualifications of technicians, such as the Quebec law, must be enacted if the situation is to be fully met. Only through such a law can the public be fully protected against inferior restorations. However, we can accept no less than the recent New York bill if the present travesty of dentist-technician relationship is to be eliminated.

Reprinted from Guild Laboratory News

A STUDY OF PROPOSALS FOR THE REGISTRATION OF DENTAL TECHNICIANS AND LABORATORIES

(Prepared by Prominent Figure in Dentistry—See Editorial)

At a time when some leaders of dental thought seek the elimination of the dental laboratory, others among the dental profession favor the Registration of dental technicians and/or the licensing of Prescription Dental Laboratories. In considering these divergent views, it should be emphasized that they do not stem from different basic conceptions. On the one hand some would eliminate what they consider a menace, and on the other, it is proposed to keep the menace under control through some form of legislation—Registration of technicians and/or licensing of prescription dental laboratories.

Among dental laboratory owners, there are also conflicting views on this subject. There are those, probably a majority, who welcome either registration or licensing as a means of minimizing what they consider unfair competition. But an increasing number of laboratory owners contend that the mere issuance of a license or registration would not cure any inherent wrong condition in operation of the dental laboratory. This group desires to eliminate any conditions which are wrong, so that any subsequent registration or licensing will represent an official acknowledgment of fitness rather than an attempt to control through legislation.

Usually when this subject is discussed, the only charge made against laboratories is that of illegal dentistry. It is always given as the sole reason for the need of legislation which will control the activities of technicians and laboratories, and the establishment of new dental laboratories. But very often this stand is only a smoke screen to hide the actual reasons for proposed legislation. These reasons are

an open secret, but are not brought out into the open by laboratory owners for fear of being misunderstood, and the profession, so far, will not admit they exist. An objective examination of these reasons, these "secret reasons" for legislation will show that something more constructive than monopolistic control is required if satisfactory dentist-technician relations are established.

The facts are that present dentist-laboratory relations are a reflection on the profession, rather than the laboratories. And this is the secret fear which has created a desire on the part of some dentists for legislation and has stampeded others into a desire for the complete elimination of the dental laboratory. These men have used the practice of illegal dentistry by an insignificant percentage of technicians to screen their real motives. These statements are made in all loyalty to the dental profession and without any motive other than to help find a solution to a problem which is a serious one.

Why are present dentist-laboratory relations a reflection on the profession? Because while the dentist is looked upon as the responsible party in prosthetic service to the nation, this is no longer true except in theory. Today, the dental laboratory is in fact, if not in theory, the responsible agent in the construction of the great majority of prosthetic dental appliances. That is to say the quality or value of prosthetic dentistry to the public is influenced to a greater degree by the unknown dental laboratory than by the dental profession. This situation is wrong. Not because dental laboratories are corrupt but because dental technicians do not have the educational background the public has a right to expect. But the relationship could become dishonest if an attempt is made to cover up the weakness with a beribboned Registration Certificate which would IMPLY educational fitness.

Some may object to this premise. They may say it is wrong to assume that the profession is not the responsible party, in fact, in prosthetic service. Then, let us consider what facts would be brought forth in an impartial investigation. Let us suppose for a moment that in connection with demands for Social Dentistry, a full dress investigation is under way by a Congressional Committee seeking facts. One of the first facts to be established is that in at least 90% of restorations, the dental laboratory furnished the design; IT WRITES ITS OWN PRESCRIPTION. By no stretch of the imagination could an order covering the make and shade and sometimes the mould of teeth to be used, be called a prescription. When a wax bite gives only the lip line and center line and the technician determines the posterior plane of occlusion and cuspal inclination, the technician is furnishing the prescription which determines the efficiency of the denture. When the technician determines the border outline, the extent and depth of relief or lack of same, and prepares the post-dam, he is furnishing the prescription for the adaptation of the denture.

It might be said that the prescription for full dentures is of relatively minor importance, and that is true. But how about the case removable appliances? Are they not designed by the technician in well more than 95% of cases? It is these more complicated restorations which are invariably designed or prescribed by the technician. It is these cases which can result in the most serious oral injuries as a result of improper prescription.

But the responsibility of the laboratory goes even further. Consider what occurs when the laboratory returns a faulty preparation. When the laboratory asks that rest spaces be furnished in certain teeth and new or additional preparations be provided. In such instances, the laboratory is actually supervising the work of the dentist. And these are not infrequent examples, but are almost daily occurrences.

Surely, it would be perfectly obvious to the Congressional Investigating Committee that the laboratory is the determining factor in the Prescription or design of the majority of dental restorations made in this country. And this is no feather in the cap of the dental technician. For the same investigation would show that the only training back of the technician's work is hit or miss, trial and error, in a dental laboratory doing bench work. It would show that he has had no education or examination respecting oral anatomy and physiology; that his knowledge of the materials he handles daily is at best superficial. And this investigation would show that due to lack of scientific training of the technician, that his prescriptions or designs, as well as his technics, are not always to the best interest of the patient or the public.

These conditions are not due to any laxity on the part either of the professions or the laboratories. Rather, they have been the direct result of the unselfish efforts of the professions which has resulted in rapid development and extension of dental services.

From the very beginning there have been dental laboratories at least in essence. Early dental literature

refers frequently to dentists who made a practice of "striking-up metal bases" or baking porcelain teeth or dentures for others. These men were known as experts in mechanical dentistry. It might be said with equal truth that their dental customers were inexpert in dental mechanics. The early dentist did not engage the services of the expert dental mechanic as a matter of convenience only, but more often as an absolute necessity as he was unable personally to do the work. And that condition has not changed to this day.

A striking advantage of the laboratories in developing a high percentage of skilled technicians is rarely mentioned. This is the fact that where there are no licensing provisions, neither are there any legalized monopolies.

Laboratory technicians rub shoulders daily with the American Free Enterprise System. The inept get nowhere. Usually they are discarded. But if they remain in the work, they are compelled to keep busy in some minor capacity, in order to earn a bare living. As a result of these circumstances, nearly every trained technician is a man with a satisfactory degree of natural aptitude for his work. The free competition among the technicians is a creative force which is continually advancing the standards of dental laboratory technics.

These favorable conditions toward technical development are missing in the profession. Those dentists who might be at the very bottom of the ladder in technical skill, may freely patronize the same technician or laboratory as his more skilled brother dentist. Moreover, with the assistance of a progressive laboratory, the inept dentist often maintains a prosthetic service which will equal and sometimes surpass that of the very best man in the profession. The very convenience of skilled laboratory service elminates the necessity for the dentist to improve his prosthetic ability. Further, the average dentist, under normal conditions, does not have the time, equipment or the variety of cases which would enable him to become a highly skilled technician.

Approximately 75% of dentists are members of organized dentistry. Of these, less than one-half give serious attention to scientific technical developments; or to scientific development of prosthetic service in general. But the dental laboratory is brought into contact with all improvements almost immediately. Where the individual dentist may take a course in the Jones method, the laboratory soon learns about the Goldstein and the Kelly Methods also. That is why the average dentist looks to his laboratory as an authority on most prosthetic problems and it is why he rarely goes elsewhere when seeking a solution to a problem case.

This gulf between the technician and the average technics and also more importantly by lack of teaching in dental colleges. The introduction of the chromium alloys has created new values and services which are impractical to carry out in the private laboratory of the dentist. To this might be added the unusual skills and aptitudes required for jacket crowns and bridgework in porcelain and the plastics. Thus the further the subject is studied the greater the proof that a modern dental laboratory is an essential and not simply a convenience to dental practice.

Dentistry has become a complex profession. While it has its roots in restorative dentistry, this phase of dentistry is often looked upon as mere repair work by some college authorities. The emphasis is placed upon the teaching of preventive dentistry, operative dentistry, medical dentistry, etc., etc. It is often said that the graduate dentist will send his work out anyway, so why spend a lot of time teaching that subject? Unfortunately, however, in many cases the student will be expected to send a complete design or prescription with orders to the laboratory. But dental technics and dental teaching are so interwoven that they cannot be divorced. One subject cannot be taught properly without an understanding of the other. Hence the graduates of many dental colleges can neither construct or design their prosthetic replacements, with a desirable degree of expertness.

In the light of this information the use of the term "Prescription" as related to laboratory work, under certain state laws, is misleading. No matter how well intended, the fact remains that the general use of the term is little more than a sham. The question arises, can proper dentist-laboratory relations be established on quick-sand.

Thus far, this study of the subject has not brought out any facts not fairly well known, not only to technicians but to numerous dentists. Often enough, leaders of dental thought are so far removed from the realities of the situation, that they do not know, and cannot be made to understand, the actualities which exist. And the rank and file are bound to a secret order compliance with decisions whether they are in accord or not. On the other hand the dental

laboratory owner can be quickly and easily punished if he dares to be frank and honest in expressing his convictions. Yet it must be clear that the proper establishment of dentist-laboratory relations requires an understanding of the truth, as the only means of correcting faults which admittedly exist.

Too often the profession fails to evaluate the contributions and the sincere spirit of the laboratory owner in relation to the aims of dentistry. The laboratory owner does have economic problems, even more so than the average dentist. And he is ambitious to earn a good livelihood and if he can, put away a competence for his old age. This is a worthy ambition. And often he succeeds. But his sincere interest in better prosthetics, his conscientious endeavors, and the heart interest he has built into the work he has handled cannot always be paid in dollars and cents. These interests can only be repaid through spiritual satisfactions. That is why laboratory owners have a stake in dentistry, and feel they are a part of it, and are entitled to treatment accorded a member of the family. Not as grown up equals by any means but as poor relations or third cousins.

Based on the foregoing, it is suggested that the chief weakness or fault of dentist-laboratory relations is that the laboratory or technician is lacking in scientific training which his responsibilities demand. A second and minor fault is the absence of proper professional attitude towards his work, on the part of the technician. A third and more serious situation is the almost absence of cordial, cooperative relations between laboratory owners and the profession. These conditions cannot be changed for better without the active assistance of the profession. The profession cannot create a desirable degree of loyalty among laboratory owners so long as the profession refuses to recognize the virtues, or abilities and accomplishments along with the weaknesses of laboratories.

The important step is one of education. In recent months, the terms senior and junior technician have come into use. A senior technician is supposedly one who can expertly construct certain appliances. Yet, it would seem that this term is more fittingly applied to a student, rather than a trained technician. Possibly the term Dental Technologist would more aptly describe the trained craftsmen. The requirements leading to any designation should be more definitely described than the loose definition of Junior and Senior Technician prepared by the War Emergency Committee of the American Dental Association. Must a dental technologist be a Cellini, and be expert in all phases of dental prosthesis? We do not expect a building mechanic to be a carpenter, mason, electrician, plumber, plasterer, a steam-fitter, etc. A well thought out teaching program cannot be developed until acceptable answers are had to these questions.

Next in line is a definite training program in the dental laboratory. This is something that must be worked out by laboratory owners. It can only be put into practice after decisions are reached as to the phase of the work which must be mastered by those aspiring to a definite rating.

Of special importance is the need of education in the basic sciences. While technicians design more than 90% of removable appliances, the average of the best technicians can only design for retention and support. They are without sufficient knowledge of anatomy and physiology to design for physiological requirements, although they are often better informed than their customers.

There should be available in text book form the required information on anatomy, physiology and special consideration to the cause and effect of stresses on teeth and other tissues, also dental laboratory metallurgy, dental laboratory chemistry, and the chemistry and physical properties of all dental materials and the laws of mechanics related to the design of full and partial dentures.

It is believed that the dental laboratory is the best teaching ground for technics because it tends to eliminate those not fitted for the work. But the basic sciences must be taught from text books through local means until college courses can be arranged for those who can matriculate by showing a specific number of years experience in technics and satisfactory execution of same. Such courses should be streamlined so the greatest number of technicians can take them.

These problems require the joint efforts of technicians and the profession so that decisions will be acceptable to all concerned. If upon the establishment of these facilities, it is desired to register technicians and license laboratories, there will be a basis for determining fitness for registration and license. In the meantime, the continued expansion of laboratory service and the ever-increasing responsibility of the laboratory will tend to widen the gap between dentist and laboratory. The longer action is postponed on these problems, the greater the difficulty in resolving them.

DENTURE SERVICE DIAGNOSIS

by
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This discussion is not presented with any undue desire to impress the reader with one's profound knowledge of the inexhaustible problems of complete denture service, but in the hope that it may awaken a keen appreciation of the need for better than average denture service.

There are three reasons why better denture service is needed.

1. The Wagner-Murray-Dingell social security bill, with three billion forty-eight million dollars to spend.

2. The national and powerful dental laboratory organizations.

3. Danger of dividing the practice of dentistry into specialty groups with the agitation for laboratory technicians to construct dentures.

In the Canadian Journal, May, 1944, appeared an article a part of which I quote:

"The suggestion has been put forward several times lately that the status of the profession would be raised if prosthetic treatment were eliminated from the practice of dentistry, and artificial dentures were made by others, to a prescription. Comparison is drawn with such things as spectacles, artificial limbs and trusses."

In a recent article of *Tic* appeared the following article by Dr. T. S. Malson, of Cleveland, Ohio:

"We do know, however, that rumor mongers have already divided dentistry into two branches, so that it will cover a larger field. One branch, operative, is to remain in the hands of the graduate D.D.S., and the second branch, prosthetics is to be placed in the hands of the dental laboratory."

Do not let us scoff at this rumor, because such an idea presented to our legislative bodies might meet with favor, as there is certainly no argument against the ability of the laboratory to construct a denture that is mechanically perfect. The question is, and this is an all important question, "Does the laboratory technician have a sufficient knowledge of the biological aspect of the case as well as a knowledge of the physiological requirements of the patient?" This thought is still just a rumor, but unless the careless dentist who now takes an impression, sends it to the laboratory, and places the burden of constructing a denture upon the shoulders of the technician mends his ways, such cases may some day be used against the dental profession.

The dental laboratory prescription should have the same definite relationship between the dentist and the technician as does the medical prescription between the physician and the pharmacist. It should be an order on the dental laboratory to prepare for the patient the following described denture.

In medicine the pharmacist cannot intelligently compound a treatment for the patient without a prescription, because he does not have the training necessary for recognizing the less apparent but nevertheless very important symptoms which may change the diagnosis from a cold to pneumonia.

This same relationship exists between the dentist and the technician. An intelligent use of the X-ray plus the knowledge of the physiological requirements of the case give the dentist an advantage that is absolutely necessary for the physical well-being of the patient.

Before we, as dentists, can intelligently write a prescription to the dental laboratory we must first make a *complete diagnosis* of the conditions, taking into consideration all underlying structures.

It is this *diagnosis* of the individual requirements that will justify the fees we now charge in order to have a functionally correct denture constructed.

At the present time some few short-sighted dentists are sending patients to the dental laboratory to have the shade selected, to have a set-up checked or for some other responsibility that should rest squarely on the shoulders of the dentist.

This practice is decidedly unfair to the dental laboratory. It is also unfair to the patient. It will offer a very good political reason for taking the prosthetic service from the dentist's office and having the patient served directly by the dental laboratory. We might set up an oculist-optometrist relation in dentistry.

We must remember that while the dental laboratory technician has the training, the skill, and the ability to build any type of prosthetic appliance to fit the cast, he has not been trained to fit and balance

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these appliances in the mouth so that they will be functionally correct. This responsibility belongs in the dental office and should be shouldered by the dentists.

Unless we dentists use that knowledge which the years of training have given us, and write a detailed laboratory prescription of the patient's needs, we are merely acting as the "middle-man," between the dental laboratory and the patient. As a "middle-man," the fees we charge are exorbitant and unfair to the dental laboratory. When we make a careful diagnosis of the patient's needs and carefully write our prescription to the dental laboratory, our fees are more than justified. We will have given to the patient the benefit of knowledge which he can get from no other source. We will have relieved the dental laboratory of the burden of guessing what type of denture would best suit the case. We will have helped the laboratories to establish their position—a more cordial relationship between the dental profession and the dental laboratories.

Upon the manner in which the dentist carries on his relations with the dental laboratory may rest the future of dental practice."

All of these factors point very definitely to the trend of times.

There are those who remember when plates were $12.00 or less and extractions included. We have come a long way since then. As near as I can ascertain, the start of improvement in denture construction and higher fees took place in 1914. It was at this time that Dr. Gysi, of Switzerland, brought to this country the first scientific *diagnostic* information such as the Gysi recording instruments and adjustable articulator, along with scientifically designed posterior teeth.

Through the guidance and sponsorship of The Dentist's Supply Company of New York, this information was made available to the profession and colleges. These fundamental principles have stood the test of time. The gothic arch for registering correct centric relation is still used by men in the profession who long ago appreciated the fact that correct centric is the hub of the wheel of successful denture construction. Without this one all important point in diagnosis, expensive make-overs are the rule and not the exception. Even today wrong bites (so called) are the laboratory technician's bane of existence.

Correct centric is just one of the important points in diagnosis, treatment, and examination for successful reconstruction of mouth health and peace of mind of the patient.

It has been my extreme good fortune for many years to work with, or observe most all of, the outstanding prosthodontists in this country and Canada. I learned something from each one. One of these men, Dr. M. M. House, of Whittier, California, whom I have had the good fortune to study with, gave me more information and illustrated time and time again the importance of proper diagnosis than all the other men. Dr. House wasn't satisfied with the articulators available. They would not reproduce his principles of diagnosis so he constructed an instrument that I describe as one that, if properly handled, will do everything but spit and talk.

The following are a few of his excellent principles of diagnosis.

MENTAL CLASSIFICATION

During consultation relative to denture service, patients should be encouraged to relate their experiences, difficulties and expectations regarding the service they are seeking. Their mental condition may then be better understood and may be classified as follows:

A. Philosophical Mind.

1-a. Those of a well-balanced mental type who have come previous to extraction and have had no experience in wearing artificial dentures; such are dependent upon the dentist for proper diagnosis and the prognosis and education. 1-b. Those who have worn satisfactory dentures, are in good health and of the well-balanced type who may be in need of further service.

B. Exacting Mind.

1-a. Those who, while suffering ill health, are seriously concerned about the appearance and efficiency of artificial dentures and, therefore, are reluctant to accept the advice of their physician and dentist and are unwilling to submit to the removal of their natural teeth. 1-b. Those wearing artificial dentures unsatisfactory in appearance and usefulness, and who doubt to such an extent the ability of the dentist to render a service that will be satisfactory that they often insist upon a written guarantee or expect the dentist to make repeated attempts without an additional fee.

C. Hysterical Mind.

1-a. Those in bad health, with long neglected pathological mouth conditions who dread dental service and submit to removal of teeth as a last resort and are positive in their own minds that they never can wear artificial dentures.

1-b. Those who have attempted to wear artificial dentures, have failed, and are thoroughly discouraged; are of the highly nervous temperament, very exacting, and will demand from artificial dentures efficiency and appearance equal to that of the most perfect natural dentures.

D. Indifferent Mind.

1. Those who are unconcerned regarding their appearance and feel very little or no necessity for mastication. They are, therefore, nonpersevering and will inconvenience themselves very little to become accustomed to the use of dentures.

Following classification of the patient's mental

attitude a careful study should be made of the anatomical conditions favorable and unfavorable to the service. To be noted are:

A. Development of the muscles of mastication.

1. Heavy. 2. Medium. 3. Light.

B. Tone of the muscles of mastication and impression.

1. Normal—conditions natural, or present following recent extractions, or where muscles have retained normal function and appearance. 2. Favorable—where natural dentition or restorations have preserved approximate normal tissue tone. 3. Not favorable—where subnormal conditions have occurred from loss of function, or due to overclosure of jaws or wearing of inefficient restorations.

C. Bony structure, Physical size.

1. *Large* upper, or lower, affording the greatest possible advantages for stabilizing the dentures. 2. *Medium* size affording less advantage for stabilizing the dentures. 3. *Small* size presenting much difficulty in stabilizing the dentures and affording much less efficient service.

NOTE: Any mouth may have one class of upper and another class lower.

D. Arch form.

1. Square type. 2. Tapering type. 3. Ovoid type.

NOTE: Any mouth may have one class upper and another class of lower arch form.

E. Ridge relation.

1. Normal. 2. Orthagnathous. 3. Prognathous.

F. Physical form of alveolar ridges.

1. With contours favorable to the aesthetic and efficient adaptation of dentures. Surgical interference would not serve to improve conditions in this classification. 2. With contours presenting minor difficulties to the aesthetic and efficient adaptation of dentures. A minor amount of surgical interference may be indicated, or mechanical relief necessary over the localized areas. 3. With contours unfavorable to the aesthetic of functional efficiency of dentures. Surgical interference indicated.

G. Soft tissues.

1. Normal uniform density of investing membrane forming an ideal cushion over the base area. 2. A mucosa approximately twice the normal thickness. 3. An excessive thickening of investing membrance which necessitates correct placement or surgical interference.

NOTE: Any combination of the classifications may be present in either arch.

H. Alveolar border tissue attachments.

Upper—1. High. 2. Medium. 3. Low.
Lower—1. Low. 2. Medium. 3. High.

I. Muscle and frenum attachments.

Upper—1. High. 2. Medium. 3. Low.
Lower—1. Low. 2. Medium. 3. High.

J. Throat form maxillary.

1. Large and normal in form. Usually accompanies low vault forms. The junction of the hard and soft palates at the sagittal center is distal to a line drawn across the cast at the posterior borders of the tuberosities. There in an immovable resilient tissue, that serves as a seal area, for a distance of from 5 to 12 mm. anterior to the fovea palatinus

2. Medium and normal in form. The junction of the hard and soft palates at the sagittal center is anterior to a line drawn across the cast at the posterior borders of the tuberosities. There is an immovable resilient tissue, which serves as a seal area, for a distance of from 3 to 5 mm. anterior to the fovea palatinus.

3. Small and usually accompanies a small size maxilla. Definite outline form of tuberosities usually absent. The junction of the hard and soft palates is perceptibly anterior (about 5 to 7 mm.) to a line drawn on the cast at the distal extension of the base outline of the tuberosity areas. The curtain of the soft palate drops abruptly at the junction of the hard and soft palates. There is seldom any resilient immovable tissue anterior to the fovea palatinus. The peripheral seal of the denture is accomplished by extending a well rounded and smooth border distally into the movable curtain to a depth of approximately 1½ to 1 mm.

E. Throat Form—Mandibular.

1. With the forefinger placed in the retromolar stabilizing area below and distal to the tuberosity, test the height of attachment and function of the muscles of deglutition. This is done by having the patient place the tongue forward and between the cheek and maxilla on side opposite to that being tested. The test is for the purpose of classifying the posterior extension. These are classified the same as other muscle attachments according to proximity to the crest of the ridge.

L. Saliva.

1. Normal in quantity and quality.

2. Abundance of semi-viscid ropey saliva. 3. Excessive amount of extremely viscid saliva.

M. Type of Osseous Structure.

(Analyzed by radiographic examination as to type.)

1. Supernormal. 2. Normal. 3. Subnormal.

N. Resorption.

1. Normal. 2. Excessive. 3. Incomplete—anticipating early period of refitting.

O. Palate Reaction.

1. Normal. 2. Sensitive. 3. Hypersensitive.

P. Retromolar Area.

1. Low muscle attachments (to crest of ridge).
2. Medium muscle attachments (to crest of ridge).
3. High muscle attachments (to crest of ridge).

Q. Tongue.

1. Normal. 2. Enlargement due to loss of teeth.
3. An excessive development of bone.

Along with the examination and diagnosis of

tissues of the mouth and bone structure, we have the asymmetry of faces. At the time of impression construction, we can correct a portion of this asymmetry by thickening the periphery of the flange on the weak side of the face.

Following this thorough examination proceed to establish Vertical dimension.

Centric diagnosis.
Condylar direction diagnosis.
a la Gysi gothic arch.
Median line.
Shade of teeth.
Mould of teeth—anterior, posterior, bicuspids, etc. Teeth should not exceed one-fourth of base area.

DIAGNOSIS OF WHY CASES FAIL

Lack of centric.
Closed relationship.
No balance.
Flanges too long—lingually. Cross bite cases. Soft flabby tissue cases, etc.

The public gives us the privilege of practicing our profession and we may limit our vision to merely using it for significance and public approval, our profession must, by our thinking, planning, and action, prove that oral conditions are a major factor in community health. Then we will be accorded our just and equivalent position as a health profession. Let us never forget that privileges may be conferred but rights must be earned.

Let us dedicate ourselves to the proposition that dentistry is the art and science which attempts to obtain and maintain the highest physiologic conditions in human mouths, and to our full share in applying these principles in behalf of our community.

Unless we as dentists, give more thought, study and execution of basic principles as applied to complete denture service, we may be like the elderly man discussing youth. "You never know when you lose it, but you certainly know when it's gone."

THREE PHILADELPHIANS DISCUSS ADAMS' PAPER

DR. FRANK A. FOX *says*:

No doubt the rank and file of the audience did not get what they were expecting to hear, such as a definite impression technique, but on the contrary, they hear some of the most essential facts of Prosthetic Dentistry. The paper was presented in a most masterly fashion, starting with the danger of socialized dentistry and the essential things that lead up to it.

Dr. Adams warned us of the growing strength of the dental laboratories, and the importance of the Dentist himself being absolute master of the operation being sent to the laboratory, the stress laid upon the Dentist with reference to prescription writing, giving a full account of what he wants done, and the correct way of doing it. I have often laid particular stress upon this subject when addressing different Dental Societies.

Adams also laid considerable stress upon the careful study of the individual patient, the advisability of which can no longer be doubted. We should have a complete knowledge of the patient's physical condition, together with his or her mental attitude. This will be of the greatest help in offering the patient an intelligent prognosis. This suggestion is by no means new, as I virtually made the same statement in a paper read about 1926, but it is well worth repeating.

The X-ray has been of great assistance to us in diagnosing some of the errors made in the past. In the Evans Institute it has been made obligatory to have X-rays (occlusal films) made of all full denture cases. It is amazing to find the number of retained roots and bits of amalgan fillings, as well as impacted teeth, that were not suspected in the ordinary mouth examination. It shows the close relationship of the ridges with the floor of the antrim, the density of the bone, and many other things that one would not be suspicious of when making a routine examination.

The speaker pointed to the accuracy of establishing correct centric relation of the jaws, from which all successful articulation must start. He referred to the Gothic arch tracing as the most accurate way of attaining centric relation, with which I am most heartily in accord. He also stressed interfering occlusion, which can cause more damage to an otherwise successful denture than any other thing that I know. This brings us to more careful consideration of our spot grinding, and a more thorough knowledge of what we are attempting to accomplish.

We should have a better conception of the curves of occlusions, both antero-posterior and lateral curves. In lateral occlusion, many of us fail to notice because of the incorrect bucco-lingual slant of the premolars and molars, that we are confronted with an interference of the upper buccal or lower lingual cusps. These interferences cause shifting of the dentures, and as a result, frequently causes soreness along the peripheral margins of our dentures. Many times these margins are trimmed instead of correcting the real cause, interfering occlusion.

DR. BENJAMIN A. LINCOLN *continues*:

Dr. C. W. Adams covered many phases of denture construction in a short time. The fear of socialized dentistry and the attempts of the technician to take over prosthesis, can be avoided if Dentists will follow analysis, care and procedures as outlined by Dr. Adams.

The Dental Schools should see that the student is well equipped with the fundamentals of prosthesis, so that he will have a better understanding of what he is expected to do in order to produce a good denture. Many Dentists do not try to absorb

the fundamentals of prosthetics and the laboratory technician takes the construction of the case in hand and advises the dentist what should be done, without considering the many other phases of denture construction.

From my experience in a dental laboratory many years ago, I observed that if the Dentist sent in poor impressions and poor bites, he would not know what the proper requirements were for good fitting dentures. More stress could be placed on what the Dentist's obligations should be in preparing the patient, the technician and himself so that satisfactory dentures can be made.

The diagnosis of the mouth and the analysis of the patient as stressed by Dr. Adams is very good. The proper salesmanship to convince the patient with the hysterical mind that he or she will be able to wear dentures is an art. As Dr. Adams brought out, unless the patient with the exacting type of mind can be educated to denture service, maybe he is better off without dentures. The acquiring of centric relation is important, but I feel that a comfortable path and inclination of the teeth should be created. Mention of ridge relationship was made, but not enough time was given to the importance of setting of the teeth with consideration of ridge relationship. Tilting of dentures can be brought about by setting the teeth outside the crest of the ridge.

Retrusion cases present great difficulty, but if teeth are set more for function than to satisfy the vanity of the patient, although a decided overjet will be present and with an easy gliding plane of occlusion, there will be better stability.

Square, tapering or ovoid type of tooth may be a method of telling a story to the technician, but the drape of the supporting material can be used to create different effects.

The interpretation of controlling vertical dimension was well applied. If the Dentist will equip himself with the fundamentals of laboratory work, it will be unnecessary for him to accept the technician's final conception in the trial setup of dentures.

The breaking up of colors in the anterior teeth can be used to good effect, but care should be taken that the harmony of color should be considered.

The selection of posterior teeth was well handled by the speaker, and if the student was taught that teeth are best selected after the case is articulated, not by a supposed guide on the face or placing of mold guide teeth in the patient's mouth, better selections could be made. Selections should be made 1 x 6 for anteriors and 1 x 8 for posteriors but never 1 x 28, as Dr. Adams brought out, the maxilla and the mandible in the same patient may be different.

In the short talk which Dr. Adams gave, he covered a great deal of ground very ably, and his answers to the questions asked after his paper was finished, were handled in expert fashion.

DR. M. M. DEVAN *concludes*:

Dr. Adams' warning is timely—that the dentist supply the laboratory with a detailed prescription for denture construction. This rather than rely on the laboratory's judgment. He pointed out that there are many forces afoot wishing to separate denture prosthetics from the field of the dentist. The practice of merely sending an impression with cursory and incomplete instructions to the laboratory is not helping the situation.

I was interested in learning that prior to 1913, a $12.00 fee was not uncommon for a full denture with the extractions thrown in (or the teeth thrown out). I remember upon graduation in 1921, the remarks of a prominent denture practitioner and teacher in this city: "If a man gets more than $35. for a plate, he is overcharging." Dr. Adams is giving credit where credit is due, when he states that the activities of the Dentists' Supply Company, back in 1914, started the present spiral of improved denture service.

In common with Dr. Adams, I have found Dr. M. M. House a most inspiring and thought-provoking prosthodontist. Pleasant were the sessions that I spent with House in prosthetic conferences in 1922-23 at the University of Minnesota. Since that time I have seldom failed to mentally classify patients according to his scheme: viz., 1. Philosophic, 2. Exacting, 3. Hysterical, 4. Indifferent. Dr. Adams' emphasis that we should stop, look, and listen (to the patient) before starting the construction of complete dentures is sound advice.

There should always be a diagnostic phase to denture service. In his diagnosis, among other factors. Dr. Adams includes the following data:— 1. Muscle tone, 2. Tissue tone, 3. Physical size of jaws, 4. Throat form, 5. State: of oral secretions, 6. Arch form, 7. Density of the Mucosa, 8. Absence of diabetes.

His comment about diabetics having trouble with dentures loosening in the late afternoon was interesting.

He commented briefly on vertical dimension, stating that there is no set rule for establishing it. His guide is sufficient clearance in the retromolar-tuberosity region.

Dr. Adams stated that according to laboratory data, 70% of failures in complete dentures are due to incorrect centric, and this after the dental profession had been given a dependable method of registering centric in 1915, i.e., the Gysi-Gothic arch-tracing. Dr. Adams employs the intra-oral method used by Dr. House.

To me, his comment about the essential factor of balanced occlusion, viz., lack of interference to protrusive and lateral movements was gratifying.

The above contains my mental notes as I listened with interest to Dr. Adams. There is a possibility that I may have misinterpreted some of his remarks.